

the dismal science**The Irrational 18-Year-Old Criminal**

Evidence that prison doesn't deter crime.

By Joel Waldfogel

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Crime control is one of the oldest problems facing social science, dating at least to [Beccaria](#), the 18th-century Italian philosopher who tried to put punishment on a rational footing. Two basic tools for controlling crime are policing and imprisonment, corresponding broadly to the first and second half-hours of a [Law & Order](#) episode. (In the vintage cast lineup, Detective Lennie Briscoe identifies a prime suspect before the second commercial break, and then prosecutor Jack McCoy does battle in court to get the defendant prison time.)

Both the prospect of getting caught and the prospect of spending time in prison are supposed to deter forward-looking, rational potential offenders from criminal activity, encouraging more-constructive pursuits like staying in school or at least making French fries. More mechanically, prison also prevents crime by simply caging dangerous people. Deterrence has long been an article of faith among economic theorists and, more recently, economists who do empirical work, too. But now a series of careful studies by economists at Columbia and the University of Michigan are calling into question whether either policing or punishment successfully deters crime.

With the traditional tools of social science, the deterrent effect of policing and punishment is hard to measure. Usually, empiricists infer an effect if crime is lower in circumstances with stiffer punishments or more policing. The problem is that tougher policies don't occur randomly. Cities and states add police or lengthen sentences as a frustrated response to crime waves. So, crime affects policing and punishment as much as the other way around. This is one of the classic conundrums of empirical social science.

If social scientists ran the criminal justice system, it would be easy for them to measure the deterrent effect of longer sentences. They'd find a group of potential offenders and lengthen prison sentences the group would face if convicted. The scientists would make sure their target likely delinquents knew about the change, and then follow them and track whether they committed fewer offenses following the date their criminal penalties would increase.

In practice, of course, such an experiment, and the individual data needed to track it, aren't on offer. David S. Lee of Columbia and Justin McCrary of Michigan have [surmounted this obstacle](#). The economists noted that when kids turn 18, they suddenly face much stiffer adult sanctions. Then they got access to data on all felony arrests in Florida between 1989 and 2002. Each arrest links to an individual,

whose birth date is included in the data. This allowed the researchers to create an arrest history for each person arrested and to measure the effect of turning 18, and thus facing longer prison terms, on criminal activity.

In Florida during the years in question, Lee and McCrary found, the probability of being sentenced to prison for an offense jumped from 3 percent to 17 percent at exactly age 18. This tees up the answer to the economists' main question: How does the tendency to commit crimes vary around the 18th birthday, when the odds of a prison-sentence punishment jump? The answer is, hardly at all. While the probability of being arrested each week falls steadily from age 17 to age 19, there is no sizeable decrease in the arrest rate that corresponds to the bump up to an adult penalty in the weeks before and after people turn 18. To an economist, this is odd. At the grocery store, in weeks that Coke is on sale and Pepsi is not, consumers respond immediately. Coke sells out while Pepsi languishes on the shelf.

If the prospect of longer prison sentences does not deter young Floridians from committing crimes, prison still prevents some crime via the more mundane channel of locking them up—incapacitating rather than deterring them, in the lingo of criminal justice theory. Lee and McCrary see this in the re-arrest data they study. One-fifth of the people arrested the week before their 18th birthday were rearrested within a month. By contrast, only a tenth of the people arrested a week *after* their 18th birthday were rearrested within the same time period. The reason? The 18-year-old offenders spent more of the month behind bars (because they received longer sentences, on average) and therefore were not free to commit the crimes that would have gotten them re-arrested.

The conclusion that prison time prevents crime through incapacitation rather than deterrence raises questions about the effect of policing. What benefit do cities and states get from putting more cops on the street? In [earlier work](#), McCrary re-examined evidence about the relationship between police levels and crime in American cities, and concluded that existing data do not allow us to "learn about the causal effect of police on crime."

It would be premature to discard literally decades of scientific research based on one or two studies. Still, these studies should keep the debate going. It may be a while before we hear that *Law & Order DUN dun* sound letting us know that the case is closed.

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